

What is claimed is:

1. A cylinder apparatus comprising a cylinder body in which a cylinder chamber closed by a cover member is formed, a piston which is installed in said cylinder body and which is displaceable in an axial direction in said cylinder chamber, a port which is provided in said cover member for supplying and discharging a pressure fluid, and a cushion mechanism which adjusts a displacement speed around an end of displacement of said piston, wherein said cushion mechanism includes

a bypass passage which communicates with said port and said cylinder chamber;

an adjusting member which is displaceably screwed with said cover member and/or said cylinder body and which has an engaging projection; and

a rotatable member which has an engaging recess, which is rotatably installed to said cover member and/or said cylinder body, and which is prevented from displacement in a direction substantially perpendicular to an axis of said cover member and/or said cylinder body,

and wherein said engaging recess of said rotatable member engages with said engaging projection of said adjusting member when said rotatable member is rotated, said adjusting member faces said bypass passage, a flow rate of said pressure fluid flowing through said bypass passage is adjusted when said adjusting member only is displaced in

said direction substantially perpendicular to said axis of said cylinder body.

2. The cylinder apparatus according to claim 1,
5 wherein said rotatable member is installed in an installation hole of said cover member and/or said cylinder body, and said rotatable member is prevented from displacement by a fastening member installed in said installation hole.

10 3. The cylinder apparatus according to claim 2, wherein said cover member includes a head cover which is secured to one end of said cylinder body, and a rod cover which is secured to the other end of said cylinder body.

15 4. The cylinder apparatus according to claim 2, wherein said installation hole includes a first hole section which is formed on an outer surface of said cylinder body, a second hole section which has a diameter reduced in a direction directed from said first hole section to said cylinder chamber, a female thread section which is formed in a direction directed from said second hole section to said cylinder chamber, and a communicating section which is
20 formed in a direction directed from said female thread section to said cylinder chamber.
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5. The cylinder apparatus according to claim 4,

wherein said communicating section is provided at an intersection between a first bypass passage which extends substantially in parallel to an axis of a piston rod and a second bypass passage which extends in a direction substantially perpendicular to said axis of said piston rod.

6. The cylinder apparatus according to claim 1, wherein said rotatable member has a columnar holding section, and a flange section which is formed under said holding section and which is expanded radially outwardly.

7. The cylinder apparatus according to claim 6, wherein a stopper ring, which prevents displacement of said rotatable member, is installed to said holding section by a ring-shaped covering member.

8. The cylinder apparatus according to claim 6, wherein said flange section has substantially the same diameter as an inner circumferential diameter of a first hole section of an installation hole, and a lower surface of said flange section abuts against a bottom surface of said first hole section.

9. The cylinder apparatus according to claim 1, wherein a clearance is always formed in a displacement direction of said adjusting member between said engaging recess and said engaging projection.

10. The cylinder apparatus according to claim 1,
wherein said adjusting member comprises a needle, and said
needle includes said engaging projection which is formed at
an upper portion, a guide section which is formed under said
engaging projection, a screw section which is formed under
said guide section, and a tapered section which is formed
under said screw section and which faces said bypass
passage.

11. The cylinder apparatus according to claim 7,
wherein said covering member is formed of an elastic
material, and a ring member of a metal material is provided
in said covering member.